in a user-friendly environment during a decision-making setting avoiding disadvantages of pre-prepared analyses.

PRM196

AN EVALUATION AND COMPARISON OF METHODS USED IN SURVIVAL ANALYSIS TO FIT DISTRIBUTIONAL CURVES TO KAPLAN-MEIER DATA

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OBJECTIVES: HTA bodies increasingly require accurate survival estimates in order to provide reliable recommendations. It is argued that access to individual patient data (IPD) can improve their accuracy. This paper aims to assess to what degree extracting IPD from published Kaplan-Meier curves helps improve extrapolated survival estimates. Some methods currently used for HTA submissions fit a survival curve directly to a published Kaplan-Meier curve, but does this lack accuracy? **METHODS:** Two methods used to extract the IPD from Kaplan-Meier curves reviewed in this paper are by Guyot et al (Guyot, Ades, Ouwens, & Welton, 2012) and Hoyle and Henley (Hoyle & Henley, 2011) which were compared against the outcomes of the standard 'least squares' method. Comparisons were made for two situations: 1) when numbers at risk are available at different time points throughout the Kaplan-Meier curve and 2) when numbers at risk are only available at the start. **RESULTS:** The three methods resulted in the long-normal distribution showing the best fit, with all containing the true mean and median within their confidence intervals. However, the Hoyle and Henley method estimates a mean marginally closer to the true mean than the other methods in both situations. When many numbers at risk are provided, the Hoyle and Henley method gives narrower confidence intervals. Both extraction methods slightly outperformed the least squares method. The three methods give median estimates and resulting confidence intervals which are statistically equivalent to that of the IPD, except for the Guyot method when numbers at risk are not available. **CONCLUSIONS:** In conclusion, extraction methods can give marginally better results than the Least Squares method. However, these results may not be applicable to other examples. In addition, the extra time taken to run extraction methods could be too large to account for the small improvement in accuracy of results.

PRM197

MULTI-LEVEL NETWORK META-ANALYSIS TO ACCOUNT FOR DOSE-RESPONSE AND CLASS EFFECTS

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OBJECTIVES: A frequent challenge in Network Meta-Analysis (NMA) arises from the fact that several interventions may belong to the same class and be given at multiple doses. Models have been proposed for NMA accounting for dose-response, but these models do not also consider class effects at the same time, which are important from a decision making perspective. We aim to develop a framework that extends dose-response NMA methods to account for dose and class effects simultaneously, and explore the ability of these models to explain heterogeneity, improve model fit and increase precision of the estimated treatment effects. **METHODS:** Using clinical trial data of treatments for acute migraine obtained from Cochrane reviews, we developed multi-level NMA models to simultaneously account for dose-response and class-effects, in particular defining a 'dose', 'treatment' and 'class' hierarchy within the NMA models. We explored a non-parametric "random walk" model constrained to be monotonically increasing with dose. Multi-level NMA models were compared to 1-level (standard) NMA models where interventions were 'lumped' at each level separately. **RESULTS:** The model that explicitly included monotonic dose-response and class effects showed the best fit and least heterogeneity, and produced more precise measures of treatment effect than all 1-level models. NMA models that made less plausible assumptions around dose-response had poorer fit than models with monotonic dose-response. **CONCLUSIONS:** We have developed a framework for simultaneously estimating treatment effects at the 'dose', 'treatment' and class level within the same NMA model. The framework can help decision makers identify the most appropriate class, drug, and dose, however, results of dose-response models are not straightforward to interpret or implement from a decision making perspective. Careful consideration should be given to dose-response and similarity of interventions when conducting NMA.

PRM198

THE LUMLEY-METHOD, A RECOMMENDED NETWORK META-ANALYSIS FOR INDIRECT COMPARISONS, SUMMARIZED FOR PRACTITIONERS

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OBJECTIVES: In recent years we have seen a growth in the use of network meta-analysis as part of the evidence base for Health Technology Assessments, with the Lumley method, published in 2002[1]being a key reference when considering both indirect and direct comparisons. Unfortunately the program-code included in the manuscript cannot easily be run, and the given examples cannot be replicated, even with corrected code. To give practitioners helpful insight into the method, we start from individual patient data of head to head trials and show how from subsequent data-aggregation the Lumley-model (a random-effects model) can be derived. **METHODS:** We give more details than in the article of how the proposed variance function aggregates study-heterogeneities and of how effect-sizes and confidence intervals can be derived from the parameter- and variance-estimates. We discuss why dependencies coming from the network-structure should be incorporated into confidence-interval calculations and of how the model can be extended with an in the article suggested Bayesian approach for modeling the random-effects parameters. **RESULTS:** We include an example of how the Lumley-method can be applied in practice. We present based on the program-example in the article a corrected R-version and a translation into SAS. For both we show how aggregated study-data should be structured and dummy-coded before running the program. The Lumley-method was applied to simulated data with known model-parameters and we show for different scenarios how close the estimates come. For selected treatment comparisons we present effect-sizes with confidence intervals. We apply also the Bayesian extension and discuss its advantages. **CONCLUSIONS:** Based on our research we give recommendations of when the Lumley-method should be best applied, and discuss limitations.[1] Lumley T: Network meta-analysis for indirect treatment comparisons. Stat. Med. 2002; 21: 2313-2324.

PRM199

ANALYSIS OF VOLUME AND STRUCTURE OF ORAL ANTIDIABETIC DRUGS CONSUMPTION IN UKRAINE

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OBJECTIVES: Evaluation and comparison of oral antidiabetic drugs (OAD) consumption at state level are an important element at control of 2ndtype DM patients treatment quality. The objective of the study is to determine the volumes and structure of OAD consumption in Ukraine and to compare it with consumption in the other countries. **METHODS:** ATC/DDD-methodology with application of DDD/1000/day (DID). The evaluation is based on consumption volume, provided by "PharmXplorer/Pharmstandard" analytical system of market research. **RESULTS:** In year 2008, OAD consumption in Ukraine was 5.78 DID and increased to 11.13 DID in year 2013. In year 2011, OAD consumption was 54.28 DID in France, 44.58 - in Germany (S. Pichetti, C. Sermet, S. van der Erf, 2013), 33.25 - in Estonia, 29.87 - in Latvia (Baltic Statistics on Medicines 2010–2012), showing that OAD consumption in Ukraine was very low. Structure of OAD consumption in Ukraine shows that 98.95% of the total consumption volume is distributed to 2 groups: sulfonylureas (73.84%) and biguanides (25%) and only 1,05% to gliptines, glitazones, glucosidases and glinides. The total share of preparations of sulfonylureas and biguanides group in the total consumption structure in France and Germany was 71.8% and 80.1% respectively of the total consumption OAD. In year 2013, OAD of the II generation - gliclazide (3.01 DID) and glibenclamide (2,09 DID) had the highest consumption level in sulfonylureas group, preparations of III generation - glimepiride (2,09 DID) had lesser consumption rate. Out of 61 OAD trade names (TN), presented in the pharmaceutical market of Ukraine, 8 TNs took 89.78% of the total consumption volume. **CONCLUSIONS:** Very low rate of OAD consumption in Ukraine shows the necessity of its increase. Analysis of OAD consumption structure evidences the application of relatively cheap and long-used medical preparations for treatment of 2nd type DM, which is largely due to financial capacities of payers.

PRM200

DEVELOPMENT OF A WEB-BASED TOOL TO ELICIT THE OPINION OF REGIONALLY DISPERSED HEALTH CARE PROFESSIONALS RESPONSIBLE FOR MEDICAL DEVICE VIGILANCE

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OBJECTIVES: In the context of uncertainty due to the lack of sound data, expert opinion is considered as a legitimate source of information for decision-makers. The use of experts' opinion requires to quantifying their uncertainty about a specific event by eliciting a probability distribution of the event. The objectives of this study were to develop a web-based tool enabling users to remotely elicit the opinion of a group of geographically dispersed experts and to evaluate the measurement properties of this tool. **METHODS:** The web-based tool allowed first to elicit univariate probability distributions separately from each expert and secondly to calculate an aggregated distribution. The elicitation method was the four-interval method that was judged to be more appropriate for non-statistician experts due to its clarity of use. As recommended to limit biases, the elicitation questionnaire included a training exercise and a graphical feedback so that the experts could validate their distributions. A pilot survey was conducted among all the French regional medical device vigilance correspondents (n=24) about the risk of failure (%) of an implantable medical device. **RESULTS:** Twenty-two correspondents (92%) completed the survey. An aggregated distribution was calculated from the elicited individual distributions and a beta distribution was fitted reflecting the group uncertainty about the risk of failure. Feasibility was judged in view of the users' feedback and time to completion. Validity and reliability were assessed using data on comprehensiveness, internal coherence and test-retest reliability. **CONCLUSIONS:** The proposed web-based tool was feasible, valid and reliable. It should be useful in making expert elicitation easier and more practical.

PRM201

KNOWLEDGE ON MEDICATION TAKING BEHAVIOUR, BALANCED DIET AND PHYSICAL ACTIVITY - A SURVEY AMONG THE ADOLESCENTS

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OBJECTIVES: The main objective of the study is to promote awareness and assess the knowledge of adolescents on medication use, importance of balanced diet and physical activity. **METHODS:** The study was conducted among the adolescents aged from16-18 years in Regions of Guntur. The volunteers are allowed to fill their informed consent to be a part of the study. The questionnaire was distributed to all the volunteers included in the study, which includes questions on their medication taking behaviour, dietary habits and physical activity. The response was then analyzed to assess the knowledge on medication use, balanced diet and physical activity. **RESULTS:** Among the 165 individuals on assessment of their medication taking behavior78% of them do not follow their prescription, 61% of the individuals do not have any idea on their medication use and a majority of 74% are not aware of the unwanted effects caused by the medication. On assessment of their dietary habits and physical activity, 62% of the individuals include meal rich in fat, 42% of the individuals skip their breakfast every day and 41% of them will not include leafy vegetables as part of their regular meal. 65% of individuals do not perform a regular physical activity **CONCLUSIONS:** It is the responsibility of the pharmacist